

Endocrinology of Fish

MS I (Semester-II)

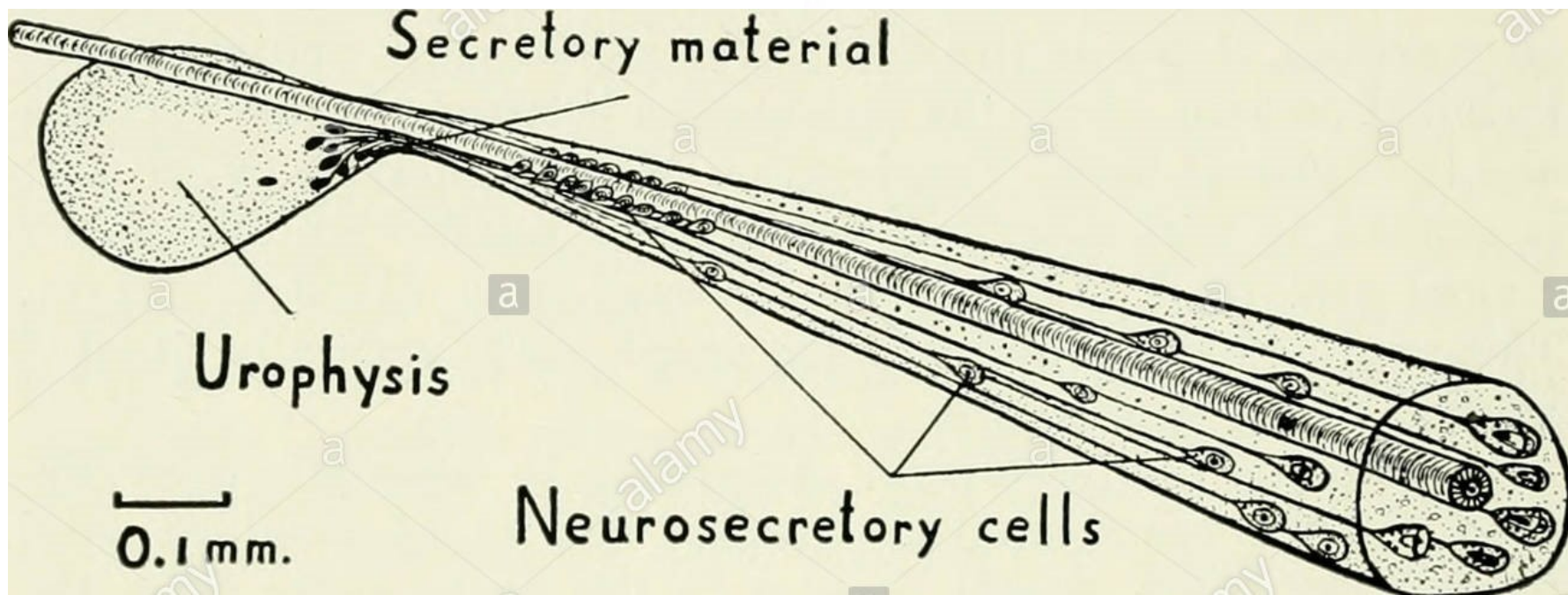
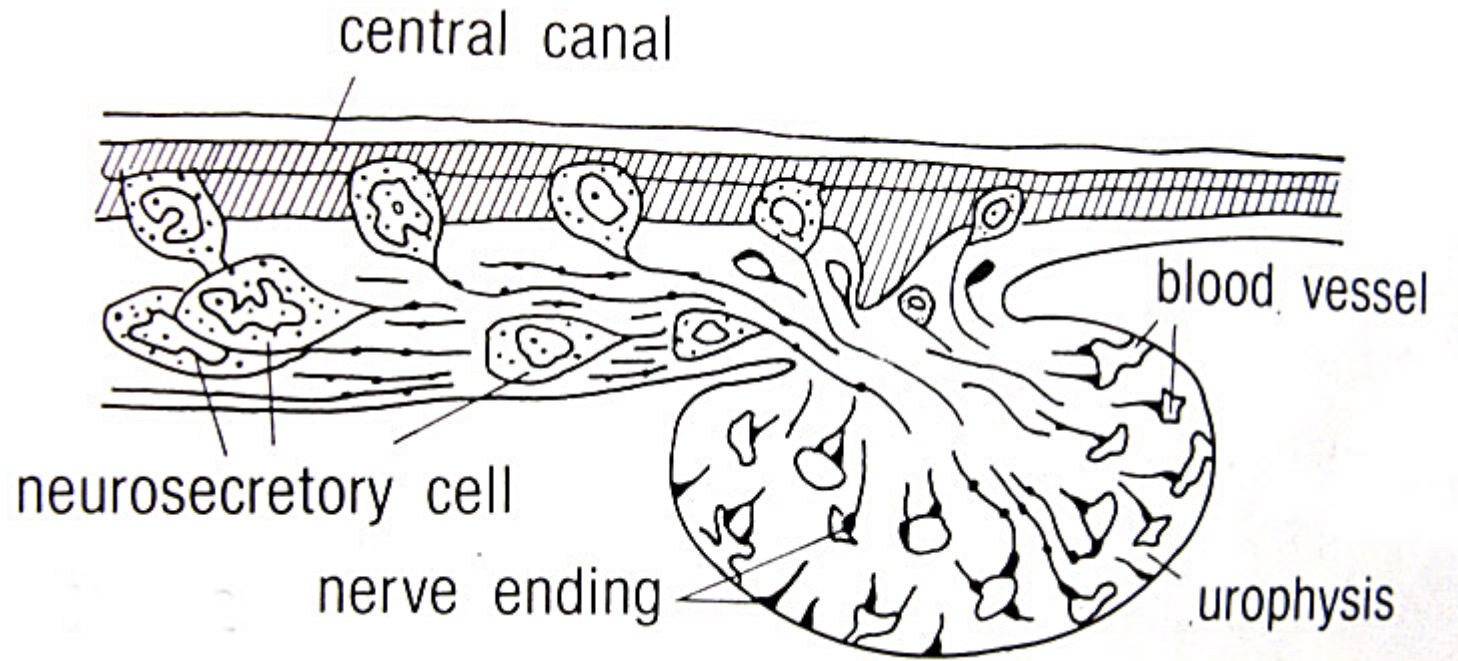
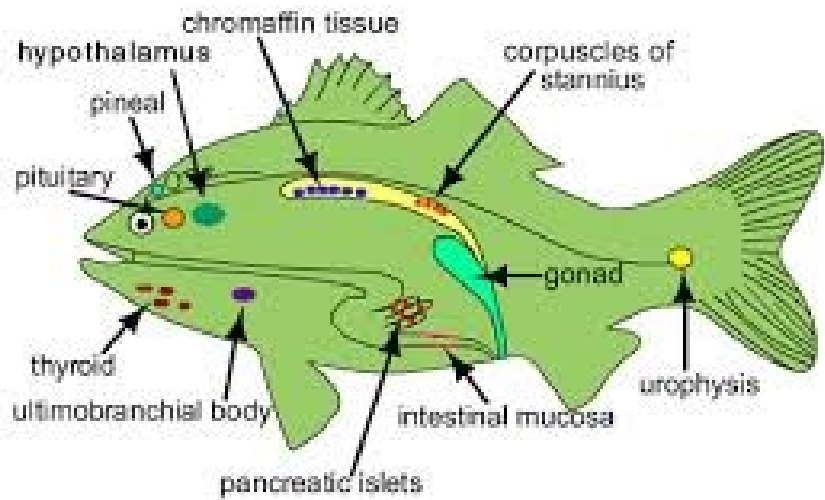
Maj/Zoo-S-406

Lecture – 12

Urophysis

Urophysis

- Urophysis is a ventral appendage from terminal spinal cord.
- It contains specialized neurosecretory cells, Dahlgren cells.
- They secrete the hormone called Urotensin
- Which is stored in ventral urophysis.



Urophysis

- Neurosecretory fibers of Dahlgren cells can be localized or may extend to 55 vertebrae in different species.
- The urotensin-I is a 41 residue peptide with a striking sequence homology with ovine corticotropin releasing factor (CRF)

Urophysis

- UI bind to CRH (corticotropin releasing factor) receptors.
- Urotensin I mimic the action of CRH.
- Urotensin II can mimic the action of somatostatin.
- Urotensin II (UII) has hypertensive smooth muscle-contracting and osmoregulatory effects.

Urophysis

- It stimulates the uptake of Na and Cl ions from different surfaces such as bladder, intestine.
- They increase BP by vasoconstriction.
- They increase urine flow and the GFR.